AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 1, line 11 with the following new paragraph:

It is well known ~~than~~ that signals transported over optical communication networks suffer degradation between associated transmitters and receivers. Signal degradation may result from a variety of system parameters including the total transmission distance, the transmission fiber type, the number of optical amplifications to a signal, the number of system channels, etc.

Please replace the paragraph beginning at page 1, line 19 with the following new paragraph:

To maintain high fidelity signal reception in optical networks, advances in receiver design have been proposed. For example, receivers are constructed with the goal of achieving an acceptable BER (bit error rate), which is the ratio of the number of incorrectly received bits to the total number of received bits. Typically, this is achieved ~~be~~ by adjusting and fixing the decision threshold of a comparator within the receiver while providing a well-known optical test signal at the comparator data input. The decision threshold is a reference voltage against which the strength of a received signal is compared. If the received signal

is above the decision threshold, it is interpreted as being "on", but if the received signal is below the decision threshold, it is interpreted as being "off".

Please replace the paragraph beginning at page 14, line 2 with the following new paragraph:

In other words, the total percentage error indicator is preferably used to determine how much the decision threshold should be altered. A large total percentage error indicator means that the decision threshold is "lopsided" or skewed too far towards either the "1"s or "0"s and should be rapidly changed. A small total percentage error indicator means that the decision threshold is close to being ideal and that smaller changes should be made to the decision threshold. In this way, the invention may rapidly arrive at a decision threshold value without overshooting and thereby reduces ~~reduce~~ the BER.